

REMARKS

Claims 1, 5, 7, 8, 10-13, 16, 18, 19, 24, 25, 27, 28 and 30-52 are currently pending in the subject application and are presently under consideration. Claim 11 has been amended as shown on pages 2-9 of the Reply. Applicants' representative thanks Examiner Nunez for the courtesies extended during the telephone interview conducted on June 12, 2008. Distinctions between the cited references and the claimed subject matter were presented; however, no agreements were reached.

Favorable reconsideration of the subject patent application is respectfully requested in view of the comments and amendments herein.

I. Rejection of Claims 11-13, 16, 18, 19, 24, 25, 30-33 and 45-52 Under 35 U.S.C. §102(b)

Claims 11-13, 16, 18, 19, 24, 25, 30-33 and 45-52 stand rejected under 35 U.S.C. §102(b) as being anticipated by Kanevsky, *et al.* (US 6,421,453). Withdrawal of the rejection is requested for the following reasons. Kanevsky *et al.* fails to disclose or suggest all aspects set forth in the subject claims.

A single prior art reference anticipates a patent claim only if it ***expressly or inherently describes each and every limitation set forth in the patent claim.*** *Trintec Industries, Inc. v. Top-U.S.A. Corp.*, 295 F.3d 1292, 63 USPQ2d 1597 (Fed. Cir. 2002); *See Verdegaa Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). The ***identical invention must be shown in as complete detail as is contained in the ... claim.*** *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989) (emphasis added).

The claimed subject matter relates to a system for controlling a computer using gestures. A 3-D imaging component performs gesture recognition and interpretation based on a previous mapping of a plurality of hand poses and orientations to user commands for a given user. In particular, independent claim 11 recites ***a system that facilitates a user interface in a medical environment, comprising: a user command to control an object of a computer system received as a gesture, wherein the object is a device connected to the computer or an application running on the computer; a 3-D imaging component that captures the gesture in the form of a***

gesture image, processes the gesture image, and interprets the gesture image to execute the user command for control of the computer system, the imaging component permits user selection of association of gestures with user commands wherein different users employ different gestures for execution of a given command, the association being determined during execution by user profile; and a wireless control device worn by the user, the orientation of which is used in combination with the gesture to control the computer system. Independent claims 19, 30 and 33 recite similar features. Kanevsky *et al.* is silent regarding such novel features.

Kanevsky *et al.* relates to a method and apparatus for user recognition to grant access to authorized users to one of a computer, a service and a facility. At page 2 of the Final Office Action, the Examiner contends that Kanevsky *et al.* discloses such novel features recited by independent claim 11 of applicants' claimed invention. Applicants' representative avers to the contrary. In accordance with the claimed subject matter, the system stores a gesture captured from a user and associates the gesture to a user selected command that manipulates on-screen objects that control a computer or a device connected to the computer. The system subsequently captures a gesture of the user, compares it to the previously stored gestures and executes the mapped user commands to control the computer. Further, the system allows different users to select different commands to associate with a received gesture. At the cited portions of col. 5, lines 10-16, Kanevsky *et al.* discloses processing the same command from multiple users, wherein the command has a different meaning to each of the users. At the cited portion of col. 8 lines 24-26, Kanevsky *et al.* discloses a system that films the gestures of an individual, matches it against a users pin database and verifies if the gesture matches the stored gesture. The result of this verification is applied to a grant/deny entry system that operates the door. In contrast, the claimed invention allows for interpreting the gesture received from the user to identify a command associated with that gesture. Thus, Kanevsky *et al.* is silent regarding *a user command to control an object of a computer system received as a gesture, wherein the object is a device connected to the computer or an application running on the computer* as recited by independent claim 11. Further at col. 32, lines 52-56, Kanevsky *et al.* discloses storing certain gestures that do not correspond to a particular individual, but instead indicate emotions such as nervousness, utilizing the stored gestures to detect additional recognition in the currently captured gestures of an individual. However, Kanevsky *et al.* is silent regarding *a 3-D imaging*

component that captures the gesture in the form of a gesture image, processes the gesture image, and interprets the gesture image to execute the user command for control of the computer system as recited by independent claim 11. At the cited portions of col. 7, lines 55-56, Kanevsky *et al.* provides for gestures of different users captured in an enrolment session, and stored in a database. The gestures are utilized to recognize the individual, wherein on recognition the user is allowed access to a computer/facility/service. However, Kanevsky *et al.* does not provide for letting a user select a command and map it with a previously captured gesture, and hence is silent regarding *the imaging component permits user selection of association of gestures with user commands, wherein different users employ different gestures for execution of a given command* as recited by claim 11.

Further at col. 31, lines 59-65, Kanevsky *et al.* discloses a gesture pin that consists of a gesture in which the user displays a proof of possession such as an ID card. However, the gesture pin only verifies the identity of the user, and does not control a computer system. In contrast, the claimed invention discloses a wireless device worn by the user, that transmits orientation signals to a receiver in the computer, the orientation along with the gestures of the user are utilized to control the computer system. Thus, Kanevsky *et al.* is silent regarding *a wireless control device worn by the user, the orientation of which is used in combination with the gesture to control the computer system* as recited by independent claim 11.

Dependent claim 32 recites *automatically learning gesture characteristics of a user associated with the user profile, and updating the user profile with the learned gesture characteristics*. At the cited portions of col. 7 lines 63-67, Kanevsky *et al.* discloses that the gestures and sounds required of the user during a recognition session must be extracted from the user during an enrolment session, the gesture and sounds may be either predefined without input from the user or made up by the user. However, Kanevsky *et al.* is silent regarding automatically learning gesture characteristics an updating the existing user profile, and thus is silent regarding *automatically learning gesture characteristics of a user associated with the user profile, and updating the user profile with the learned gesture characteristics* as recited by claim 32.

In providing for a user to select a particular command to associate with a captured gesture, the system allows different users, who may prefer to make different motions for a given command, the ability to tailor the system in a way most efficient for their personal use.

Accordingly, it is requested that this rejection with respect to independent claims 11, 19, 30 and 33 (and the claims that depend from) should be withdrawn.

II. Rejection of Claims 1, 5, 10, 27, 28, 34, 39-44 Under 35 U.S.C. §103(a)

Claims 1, 5, 10, 27, 28, 34, 39-44 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Kanevsky in view of Oohara, *et al.* (US 5,801,704). Withdrawal of this rejection is requested for the following reasons. Kanevsky *et al.* and Oohara *et al.*, alone or in combination, fail to disclose or suggest all aspects set forth in the subject claims. Claims 1, 5, 10, 27, 28, 34, 39-44 depend from independent claims 1, 19 and 33. Independent claim 1 recites similar features as independent claim 11, namely ***the imaging component permits different users to select different commands to associate with the received gesture such that the received gesture executes a user command based on user profile***. Kanevsky *et al.* and Oohara *et al.*, alone or in combination, fail to disclose or suggest such novel features.

As discussed supra with respect to independent claim 11, at the cited portions of col. 7, lines 55-56, Kanevsky *et al.* provides for gestures of different users captured in an enrolment session, and stored in a database. The gestures are utilized to recognize the individual, wherein on recognition the user is allowed access to a computer/facility/service. However, Kanevsky *et al.* does not provide for letting a user select a command and map it with a previously captured gesture, and hence is silent regarding ***the imaging component permits different users to select different commands to associate with the received gesture such that the received gesture executes a user command based on user profile*** as recited by independent claim 1.

Oohara *et al.* relates to a method of image processing for processing an object by detecting movement of hands and fingers of an operator. At the cited portions, Oohara *et al.* discloses an operator selecting functions by performing the gesture that corresponds to the function, displayed in an instruction action form. However, Oohara *et al.* does not provide for letting a user select a command and map it with a previously captured gesture and fails to make up for the aforementioned deficiencies of Kanevsky *et al.* regarding independent claim 1.

In view of the above, it is clear that Kanevsky *et al.* and Oohara *et al.*, alone or in combination, fail to disclose or suggest each and every feature recited by the subject claims.

Accordingly, it is requested that this rejection with respect to independent claims 1,19 and 33 (and the claims that depends from) should be withdrawn.

III. Rejection of Claims 35-38 Under 35 U.S.C. §103(a)

Claims 35-38 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Kanevsky in view of Hildreth, *et al.* (US 7,227,526). Withdrawal of this rejection is requested for the following reasons. Claim 35 depends from amended independent claim 33. Independent claim 36 recites similar features as claim 33, namely *means for returning a computer command associated with the recognized gesture, wherein different commands are returned associated with different users for the received gesture*. Claims 37 and 38 depend from claim 36. As discussed *supra* with respect to independent claim 33, Kanevsky *et al.* fails to disclose or suggest *different users to select different commands to associate with the received gesture*. Hilderth *et al.* relates to an image processing system for processing stereo image data. However, Hilderth *et al.* is silent regarding permitting *different users to select different commands to associate with the received gesture* as recited by the subject claims and fails to make up for the aforementioned deficiencies of Kanevsky *et al.* Accordingly, it is requested that this rejection with respect to independent claims 33 and 36 (and the claims that depends from) should be withdrawn.

IV. Rejection of Claim 7 Under 35 U.S.C. §103(a)

Claim 7 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Kanevsky in view of Oohara, *et al.* (US 5,801,704), further in view of Kazama, *et al.* (US 6,111,580). Withdrawal of this rejection is requested for the following reasons. Claim 7 depends from independent claim 1. As discussed *supra*, Kanevsky *et al.* fails to disclose or suggest all features of amended independent claim 1. Kazama *et al.* relates to an input apparatus for detecting a user's action and for outputting operation corresponding to the action, and fails to make up for the aforementioned deficiencies of Kanevsky *et al.* Accordingly, it is requested that this rejection with respect to independent claim 1 (and claim 7 that depends from) should be withdrawn.

V. Rejection of Claim 8 Under 35 U.S.C. §103(a)

Claim 8 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Kanevsky in view of Oohara, *et al.* (US 5,801,704), further in view of Dempksi, *et al.* (US 7,007,236).

Withdrawal of this rejection is requested for the following reasons. Claim 8 depends from independent claim 1. As discussed *supra*, Kanevsky *et al.* fails to disclose or suggest all features of amended independent claim 1. Dempksi *et al.* relates to a method for manipulating virtual objects on a video conference broadcast, and for outputting operation corresponding to the action, and fails to make up for the aforementioned deficiencies of Kanevsky *et al.* Accordingly, it is requested that this rejection with respect to independent claim 1 (and claim 8 that depends from) should be withdrawn.

CONCLUSION

The present application is believed to be in condition for allowance in view of the above comments and amendments. A prompt action to such end is earnestly solicited.

In the event any fees are due in connection with this document, the Commissioner is authorized to charge those fees to Deposit Account No. 50-1063 [MSFTP397USA].

Should the Examiner believe a telephone interview would be helpful to expedite favorable prosecution, the Examiner is invited to contact applicants' undersigned representative at the telephone number below.

Respectfully submitted,

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